

It seems exceedingly likely that the *Petalograpti* had a *Phyllograptus* as a remote ancestor, but the evidence for this is not yet complete, nor can the Author state whether *Cephalograptus* had a further stage in a form of *Dimorphograptus*.

MISCELLANEOUS.

What are the Names of the Crayfish and Lobster?

By R. I. Pocock.

THE hope of being able to supply an answer to the above question gives me the courage at this juncture to intervene in the discussion concerning *Astacus* and *Potamobius* started in the 'Annals' of last December by Prof. Bell; for, in spite of all that has been written on the subject, it may be doubted whether those who are not specially conversant with the questions of nomenclature that have been raised are any more enlightened as to the correct names of these now famous crustaceans than they were before the controversy began.

It seems to me, however, that the question may be set at rest by the application of a principle in nomenclature which is becoming widely accepted amongst systematic zoologists, and will doubtless be universally admitted when our views are a little more coherent and advanced than they are at the present time. It is one of the principles for selecting the type species of a genus when no type has been designated by its author, and may be stated as follows:—When the name of a genus is the same as that of one of its component species, that species is the type of the genus.

If this principle be applied to the case of the lobster and the crayfish, it will be found that the name *Astacus* must be attached to the latter, for in both the tenth and twelfth editions of the 'Systema' Linnaeus called the Swedish crayfish *Cancer astacus*; and since *Astacus* was subsequently used by both Gronovius and Fabricius as a generic term for a group comprising amongst other species the *Cancer astacus* of Linnaeus, the latter is *ipso facto* the type of the genus *Astacus*. Therefore the name of the Swedish crayfish is *Astacus astacus* (Linn.). With *Astacus* thus fixed definitely on to the crayfish, *Homarus* will, it seems, without let or hindrance, resume its place for the lobster, with the specific name *gammarus* which Linnaeus assigned to it.

This appears to me to be a sensible and simple solution of this and other similar cases. In the present instance it does away with difficulties arising in connexion with the subsequent actions of Leach, White, Milne-Edwards, and others, and is independent of the selection of the tenth or twelfth edition of the 'Systema' as the starting-point in systematic zoology.

In conclusion, there is one little point about which it may perhaps be permitted to me to put Mr. Stebbing right. From some words that appear in his contribution to the present discussion it is to be inferred, though perhaps wrongly, that he considers a semi-official system of nomenclature to be in vogue at the Natural History

Museum, and agreement on this point to exist amongst the members of the staff. Happily nothing could be further from the truth. There may be some subjects about which unanimity could be found, but nomenclature is certainly not one of them.

The Lobster and the Crayfish: a Reply.

By the REV. THOMAS R. R. STEBBING, M.A., F.R.S., F.L.S.

Pallas, in his 'Spicilegia Zoologica,' fasc. ix. p. 81, speaks of a crayfish as *Astacus dauricus*. Since this was in 1772, Dr. Arnold Ortmann, in a courteous letter, asks what bearing this may be thought to have on the claim of Fabricius in 1775 to rank as the first Linnean authority for *Astacus*. Dr. Ortmann indicates in advance his acceptance of the appropriate answer. Pallas is neither defining a genus nor even instituting a new species, for he speaks of *Astacus dauricus* as a variety of the common crayfish, and proceeds to give a "Descriptio Canceri daurici," in which he says that "Forma atque proportione Astaco nostrati minori persimilis est." It is evident that he is using *Astacus* only as a customary designation for a subdivision of the still-maintained genus *Cancer*, and by his reference to a minor *Astacus* he implies a major species, which would have had preference as type if at that time any question had arisen as to the proper type species of *Astacus*. In his index *dauricus* becomes *dauricus*, but under neither spelling can it become the type of a genus which by the very terms of the description possessed an earlier species.

From Pallas I must return to Professor Bell and endeavour to deal in orderly method with the six points of his crushing reply.

(i.) In regard to the date of *Nephrops*, he is surprised at my supposing that he referred to Leach's article "Crustaceology," instead of to Leach's paper in vol. xi. of the Linnean 'Transactions.' Yet what else could or can be supposed, since he himself gave the date 1814, which applies to the former and does not apply to the latter? To be sure the "Crustaceology" is unsigned, and an edition of it may have appeared in 1813, but, seeing that Leach claimed it as his own on the very first day of January, 1815, it is rather my turn to be surprised that Professor Bell should refer to it as "an anonymous article of uncertain date."

(ii.) That the genera of Gronovius "are as good as those of" Brisson may or may not be true, but that the particular genus *Astacus* was instituted by Gronovius, or was so defined or so used by Gronovius as to give him any title to be the authority for it, may be with confidence denied. Besides, the whole question turns on the choice of a type species, and the Gronovian species are admittedly out of court.

(iii.) That 1758 has long been held by many naturalists to be "the zoological *ab urbe condita* of binominal chronology" I was not unaware; but in 1890 the authorities of the British Museum had not yet endorsed that excellent opinion. To the question whether I know "that 1758 has been well called" by the terms of the above quotation, my answer would be in the negative, for, though the